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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,222	12/19/2001	Neal L. Goldstein	012607-272105	3484

28584 7590 02/23/2005

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EXAMINER

HOSSAIN, TANIM M

ART UNIT	PAPER NUMBER
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2145

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/032,222		GOLDSTEIN, ET AL.	
	Examiner		Art Unit	
	Tanim Hossain		2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 41 is objected to because of the following informalities: “inquires” appears to be a typographical error. Appropriate correction is required.

Claim Rejections - 35 USC § 102

Claims 1-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Robertson et al (U.S. 2002/0173984).

As per claims 1-43, Robertson teaches:

1. A computing system, which comprises: a bus (paragraphs 0052, 0114); a service requestor container operatively coupled to said bus, said service requestor container containing a service requestor application (Abstract, 0024, 0087); a service provider container operatively coupled to said bus, said service provider container containing a service provider application (Abstract, 0140); and, a virtual data store operatively coupled to said service requestor container and to said service provider container (0009).
2. The computing system as claimed in claim 1, wherein said bus includes a service discovery component (0114).

3. The computing system as claimed in claim 2, wherein said service provider container includes a component for advertising the service provided by said service provider application to said service discovery component (0114, 0119).
4. The computing system as claimed in claim 3, wherein said service requestor container includes a component for finding a service advertised to said service discovery component (0114, 0115, 0119).
5. The computing system as claimed in claim 1, wherein said service provider container includes an interaction broker component, said interaction broker providing an interface between said bus and said service provider application (0089).
6. The computing system as claimed in claim 5, wherein said interaction broker component includes a request broker component for invoking said service provider application based upon service requests received from said bus (0099).
7. The computing system as claimed in claim 5, wherein said interaction broker component includes an event handler component for invoking said service provider application based upon events read from said bus (0072).

8. The computing system as claimed in claim 5, wherein said interaction broker component includes a stream handler component for invoking said service provider application based upon data read from a stream (0121, 0182).

9. The computing system as claimed in claim 1, including a plurality of service provider containers operatively coupled to said bus, each of said service provider containers containing a service provider application (0248).

10. The computing system as claimed in claim 9, wherein a first of said service provider containers is a publisher container and a second of said service provider containers is a subscriber container (Abstract, 0036, 0108).

11. The computing system as claimed in claim 10, wherein: said publisher container includes a component for advertising publication of an event (0061).

12. The computing system as claimed in claim 10, wherein: said subscriber container includes a component for subscribing to publication of an event (0119).

13. The computing system as claimed in claim 1, wherein said virtual data store includes: a posting service component operatively coupled to said service provider container (0119).

14. The computing system as claimed in claim 13, wherein said virtual data store further includes: a read/write data store operatively coupled to said posting service (0119, 0060).

15. The computing system as claimed in claim 13, wherein said virtual data store further includes: an inquiry service component operatively coupled to said service requestor container; a read-only data store operatively coupled to said inquiry service component; and, a replication component operatively coupled to said read-only data store and said read/write data store (0119, 0349, 0351).

16. The computing system as claimed in claim 13, wherein said bus includes: a channel manager component, said channel manager component being adapted to create a channel in response to receipt of an open channel message from a first container wherein each of said channels is identified by a logical channel name (0171).

17. The computing system as claimed in claim 16, wherein said logical channel name is a handle dynamically created by said channel manager component (0189).

18. The computing system as claimed in claim 16, wherein said channel manager component is adapted to create a tank, and said logical name is a name of said tank (0060, 0189).

19. The computing system as claimed in claim 16, wherein said channel is a service channel (0196).

20. The computing system as claimed in claim 16, wherein said channel is an event channel (0171, 0119).

21. The computing system as claimed in claim 16, wherein said channel is an unmapped stream (0059, 0318, 0416).

22. The computing system as claimed in claim 16, wherein said channel is a mapped stream (0059, 0318, 0416).

23. The computing system as claimed in claim 22, wherein said channel manager component is adapted to create a tank associated with said mapped stream (0059, 0318).

24. The computing system as claimed in claim 16, wherein said channel manager component is adapted to transmit said logical name to said first container (0059).

25. The computing system as claimed in claim 24, including: a service discovery component, said service discovery component being adapted to receive said logical name from said first container (0106).

26. The computing system as claimed in claim 25, wherein said service discovery component is adapted to transmit said logical name to a second container in response to a find channel message from said second container (0189).

27. The computing system as claimed in claim 16, including a context manager component, said context manager component being adapted to determine if a container is authorized to use a channel (0113).

28. The computer system as claimed in claim 1, wherein each said container comprises: an interface to said bus; and, an interaction broker, said interaction broker being adapted to invoke a service based upon an interaction style on said bus (0090, 0089).

29. The computer system as claimed in claim 28, wherein said interaction broker includes a request broker that invokes an operation of said service in response to a service request received at said interface to said bus (0091).

30. The computer system as claimed in claim 28, wherein said interaction broker includes an event handler that performs an event to operation mapping to invoke said service in response to an event received at said interface to said bus (0091, 0060).

31. The computer system as claimed in claim 28, wherein said interaction broker includes a stream handler that performs a data-type to operation mapping to invoke said service in response to a stream received at said interface to said bus (0088, 0098).

32. The computer system as claimed in claim 28, wherein said container includes means for enabling said service to participate in extended units of work (0098, 0113).

33. The computer system as claimed in claim 32, wherein said means for enabling said service to participate in extended units of work includes means for providing compensating actions for every action that can be performed by said service (0123).

34. The computing system as claimed in claim 28, wherein said container includes means for encapsulating security policies on behalf of said service (0123).

35. The computer system as claimed in claim 28, wherein said container includes means for encapsulating system management policies on behalf of said service (0123).

36. The computer system as claimed in claim 1, wherein each said container comprises: an operation interface defining a set of operations of a business service application that can be called by other business services (0012); an event interface defining a set of events that can be raised or handled by said business service application (0015); and, a stream

interface defining a set of streams that said business service application reads or writes (0060).

37. The computing system as claimed in claim 1, wherein said virtual data store comprises: a posting service coupled to receive data updates from said service provider container (0119); a first database coupled to said posting service (0119); an information service coupled to provide data in response to inquiries from said service requestor container (0047); at least one second database coupled to said posting service (0119); and, a replication manager coupled between said first database and said at least one second database for selectively replicating data from said first database to said second database (0351).

38. The computing system as claimed in claim 37, wherein said first database is a read/write database (0344).

39. The computing system as claimed in claim 37, wherein said at least one second database is a read only database (0351).

40. The computing system as claimed in claim 37, including a data cache coupled to said information service (0344).

41. The computing system as claimed in claim 40, wherein said information service includes means for selectively satisfying inquiries from said service requestor container from one of said data cache and said at least one second database (0344).

42. The computing system as claimed in claim 40, including a cache controller coupled between said data cache and said information service (0344).

43. The computing system as claimed in claim 42, wherein said cache controller is coupled to said posting service (0344).

44. The computing system as claimed in claim 37, wherein said information service includes means for calling a security manager for security information (0295).

45. The computing system as claimed in claim 37, wherein said replication manager includes logic to preserve unit of work updates (0351).

46. The computing system as claimed in claim 37, wherein said replication manager includes logic to ensure that only the latest version of data is replicated to said at least one second database (0351).

47. The computing system as claimed in claim 37, including a data currency manager coupled to said information service to enable said information service to determine what version of data to use to satisfy a inquiry from said service requestor container (0352).

48. The computing system as claimed in claim 37, including a data currency manager coupled to said information service to enable said information service to determine latency of data in said at least one second database (0352).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


- a. Pai et al (U.S. 2003/0152182) teaches exchange methods between enterprise systems.
- b. Shteyn (U.S. 6,618,764) teaches interaction between differing software architectures.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanim Hossain whose telephone number is 571/272-3881. The examiner can normally be reached on 8:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin-Wallace can be reached on 571/272-6159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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